Medicine in Perspective

Experience of a Clinic for Afghan Refugees in Pakistan

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Since the Soviets invaded Afghanistan in 1979, 3.5 to 4 million refugees have moved into Pakistan and Iran. Even before the war, the health status of the Afghans was extremely poor and the medical personnel limited. Various international efforts are attempting to cope with the health care needs of the refugees. Economic, language, and cultural problems hamper the projects. One clinic found the most common problems were of the gastrointestinal tract, then the respiratory tract, with a problem ranking similar to that of pre-war Afghanistan. Many of the health problems are linked to deficiencies in sanitation and nutrition.

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Afghanistan is a landlocked country with Russia along its northern border, Iran on its west and southwest, and Pakistan on its east and southeast borders. Most of the population centers are along the east, and the major trade routes have traditionally been from Pakistan across many mountain passes, including the Khyber.

The Soviet Union invaded Afghanistan in December 1979. Bombardment and shelling of villages by the Soviets continued at least until the "Geneva Accords" were signed April 14, 1988. Some Soviet troops have withdrawn, but not all are scheduled by the Accords to leave until late 1989. Meanwhile, the Soviet-backed Afghan army continues the battle against the freedom fighters, or *mujahidin.* Refugees have streamed out of Afghanistan. About 3.5 million of the original 17 million population are now in camps in Pakistan and possibly 1 million are in Iran. Other millions have left the countryside for the relative safety of Soviet-occupied cities, especially Kabul. The *mujahidin* operate throughout the country but bring their supplies via the trade routes primarily from Pakistan and some from Iran. The *mujahidin* operate with strong emotional support from and identification with the villagers remaining in Afghanistan and also receive what little food supply and shelter the villagers can offer. For this reason, the villages, particularly along the Pakistan borders, were the target of intense Soviet attack, and farmlands were burned.[1]

Even as the Soviets withdraw and some towns are won back by the *mujahidin,* the return of the refugees is being delayed by the danger of an estimated 3 to 5 million land mines left by the departing Soviets. The United Nations is planning a de-mining operation, which may take years, and thousands may die from undetected mines (J. C. Randal, "Soviets Leaving Deadly Farewell Gift for Afghans," *Sacramento Bee,* June 26, 1988).

Since 1979, the Russians have suffered an estimated 25,000 deaths, according to Soviet sources quoted by the US Department of State.[2] The death and destruction suffered by the Afghans have been extreme. Many of the Afghan victims are civilians, including women and children, and are victims not only of direct attack on their villages but also land mines and bombs disguised as toys and other innocent and attractive devices. The Afghans also suffer from diseases associated with poor nutrition, poor sanitation, environmental exposure that includes both intense dry heat in the desert regions in the summer and severe snow and winter storms in the mountains, and the emotional trauma caused by the destruction of their lands, by the death of family members, and by dislocation.[1]

Even before the invasion, the health status of the Afghans was critically poor. By 1979 census and survey data, the life expectancy at birth was about 41 years, probably the lowest in the world, with a crude death rate of 22 per 1,000 population. Infant mortality was 182 per 1,000 population. Births averaged up to 8.2 per married woman, among the highest ever recorded, with 81% surviving to age 5 in urban areas, 61% in rural areas. Maternal mortality may exceed 100 per 100,000 live births.[3] In 1973-1975 hospital clinic studies in Kabul, 92.6% of children were found to have intestinal parasites, most of them ascariasis, *Giardia,* and *Entamoeba histolytica,* in that order. Tuberculosis was found in 2% to 3% of the population.[4] Malnutrition was recorded in 67% of children admitted to hospital.[5] Gastroenteritis was the major cause of admission for these children, followed by respiratory tract infections. The case-fatality rate for all pediatric admissions for all diagnoses was 8% and that was in the major children's hospital in the country.[5]

Intensive epidemiologic studies of several rural Afghan villages in 1967-1968 disclosed an infant mortality rate of 205 per 1,000 live births, with 3.8% of adult women reporting at least one stillbirth.[6] Malaria was found in 20.8% of children in lower altitude villages, *Shigella* in as many as 7.1% of all children, *E histolytica* in 6.8% to 21%, and *Giardia* in 3% to 11.7% in the various villages studied. Of adult chest x-ray films, 3% showed tuberculosis, 1.2% being cavitary.[6]

The availability of health professionals in Afghanistan has never been good and has deteriorated substantially since 1979. Two medical schools had produced one physician per 11,000 population. These physicians were not well dispersed through the countryside but rather concentrated in more

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ABBREVIATIONS USED IN TEXT
IMC = International Medical Corps
USAID = United States Agency for International Development

urban areas.[4] Because the physicians traditionally came from more influential families and the medical schools had ties with western countries, they were in great danger from the invading Russians. Most of the Afghan physicians fled Afghanistan early after the invasion or were killed. Most who fled are now in Europe or India. Only a few remain in Afghanistan who are available to help the rural people and the *mujahidin,* and a few are in the refugee areas. Probably a dozen portable hospitals are available that move frequently with the tides of war. (Foreign medical personnel, especially European and American, have traveled with the *mujahidin* throughout Afghanistan, but this is discouraged by governments because of the danger. Some have been killed.) Nursing and other allied health professionals also were scant before the war and are further decimated now.

Health care for women has always been a particular problem because tradition argues against both the examination of women by male practitioners and higher education of women in professional roles. By the 1979 census, only 31% of women had any formal education at all, compared with 63% of men.[7] Few women had gone on to medical or nursing school, and fewer still are working in the area now. The education and status of women was one of the issues that divided the political parties, especially before the invasion.[8]

Medical evacuation is also a particularly hazardous enterprise for the *mujahidin* and the injured and sick civilian populations. There is no air evacuation, roads are few and under constant attack, and vehicles are functional for only short distances. Evacuation must be by camel, donkey, or horse and most commonly on foot. Most places in the country are many days, even weeks, of travel to safe medical care in Pakistan or Iran. The evacuation problem has greatly increased mortality and morbidity.[9]

Medical Care for the Refugees

Little is known in the West about medical care available to the Afghan refugees in Iran. In Pakistan, many organizations are involved in medical care, but even together they cannot meet the great need. Coordination of their services is attempted by the Pakistan Department of Health, particularly for clinics that operate directly within the refugee camps. The United Nations High Commissioner for Refugees, in conjunction with the World Health Organization and World Food Program, organizes relief efforts for the refugee camps. Their efforts have included safe drinking water through deep wells and the distribution of tents, blankets, and food stocks, particularly wheat, flour, soyabean oil, tea and sugar, and dried milk products for mothers and children. The adult food allotment is based on 2,200 calories per day, but distribution is erratic and incomplete.[10]

Primary care clinics have been established in many of the refugee camps, staffed mostly by Pakistani physicians and other health workers and organized by the high commissioner and the health department of the North-West Frontier province of Pakistan. Other refugee clinics are operated by relief efforts from European nations, Saudi Arabia, and the United States, using Afghan, Pakistani, and foreign personnel.

Numerous hospitals in the more urban areas of Pakistan along the Afghan border serve refugees from many camps and receive the wounded and sick directly as they come from Afghanistan. The Khyber Hospital, run by Pakistani physicians in Peshawar, is the largest. Another is an excellent hospital particularly for trauma patients operated by the International Committee of the Red Cross, administered by Swiss, and staffed mostly by western European physicians and staff. Saudi Arabia and Kuwait run hospitals for the Afghans both in Peshawar and in Quetta. Five of the seven principal political parties of the Afghan resistance run small 20- to 40-bed hospitals. They are ill-equipped but are run entirely by Afghan personnel. Also, there is the Afghan Surgical Hospital supported by a Pakistani Islamic charity and with visiting physicians from Orthopaedics Overseas, a US-based group. The Afghan Obstetrics-Gynecology Hospital has several Afghan women physicians and midwives and Pashto-speaking Pakistani women physicians, with US physicians visiting under the auspices of International Rescue Committee, Rotary International, and, recently, the American Aid for Afghans. An excellent eye hospital has been run by two generations of American missionary ophthalmologists, with US and European backing, since the 1960s. All of these hospitals are crowded. They serve urgent needs of the Peshawar and Quetta areas fairly well, but many less urgent problems cannot be dealt with. The needs of refugees farther from these cities are even less well met.

Language barriers complicate health care. Most Afghan refugees speak Farsi and many speak Pashto, a language that is native to tribes on both sides of the border. Several other languages are spoken by the Afghans. Some of the Pakistani health professionals speak Pashto, but most speak Urdu, a language not understood by the Afghans. The Saudi and western workers rarely speak Afghan languages.

Several programs train Afghan *mujahidin* to be paramedics. The French, Belgians, Germans, and Saudi Arabians run programs, as do three American groups: Mercy Corps International, Freedom Medicine, and the International Medical Corps. The western country projects are all private volunteer organizations, rather than government-operated, though most have some government subsidy. The US Agency for International Development (USAID) contributes to projects operated by many nations. Some of these programs focus their training only on battlefield trauma while others include primary care because of the illnesses suffered by the *mujahidin* and by the civilian population in Afghanistan. The students for these programs are commonly selected by *mujahidin* commanders, and after graduation they return to their fighting units. Training programs run 6 to 18 months. Some programs issue medical supplies for their graduates to take into Afghanistan with them, and some programs continue to supply them. A Swedish group also operates an extensive medical supply system.[9]

The USAID has contributed $480 million to many of these health, training, and food projects through fiscal 1986, including to European private volunteer organizations.[2]

The Nasir Bagh Clinic

In March 1986, a clinic was opened by the International Medical Corps (IMC) adjacent to a large refugee camp of about 32,500 Afghans. The Nasir Bagh area is eight miles southwest of Peshawar, located in the rocky flatlands at the base of the mountains along the Afghan border. The clinic is

a concrete and brick structure initially having ten rooms, including a separate entrance and waiting room and two examination rooms for women and a waiting room and four examination cubicles for men. The clinic has electricity most of the time, a septic tank, and deep well water. The facility has subsequently been enlarged.

The clinic was established in part to serve as a training clinic for the paramedics being trained by the IMC. The opening of the clinic coincided with the clinical phase of the first class of 45 students. These students rejoined their regiments in the summer to be replaced by subsequent classes. Medical personnel for the clinic included initially two Afghan physicians and volunteers from the United States, including a succession of short-term physicians, nurse practitioners, physician assistants, nurses, and medical students, who served with the help of translators. Afghan paramedic students examined the patients and presented to the physician staff, who reexamined and helped with the diagnosis and management.

The clinical laboratory initially consisted only of a microscope for malaria smears, but subsequently had the capacity for measuring hemoglobins and doing blood counts, urinalyses, stool examinations, sputum smears, pregnancy testing, and blood typing. That diagnostic facility was not available during the first several months of the clinic's operation. Radiology was not available in the clinic, but x-ray films could be obtained by referring patients to hospitals in Peshawar, usually at great cost to the patients. Simple radiology has recently been added to the Nashir Bagh Clinic. The clinic pharmacy dispensed medication purchased by the IMC or donated by benefactors in the US. This resource was generally satisfactory. Referral for hospital admission was to selected hospitals in Peshawar as described above. The teaching and clinic operations continue as of this writing.

Diagnoses and Medical Problems

A one-page medical record is written for every patient on every visit, filed both by date of visit and by sequential number. The record is written in a subjective-objective-assessment-plan format, with the patient's name and estimated age included. The clinic began seeing patients on March 22, 1986. For the first 50 working days thereafter (through June 4) the clinic registered 2,409 patients, averaging 48 patients a day. Half of these were on the "women's side" and half on the men's, although the patients seen on the women's side were mostly children the women brought. Overall, 47% of all registered patients were pediatric

TABLE 1.—*Age and Sex Distribution of Afghan Refugee Patients Seen in Nasir Bagh Clinic, Pakistan, April 16 to June 2, 1986*

Age	Sex: Female, No.	Sex: Male, No.	Total: No.	Total: %*	
0-11 mo	60	97	157	13	
12-35 mo	46	63	109	9	
3-13 yr	140	169	309	25	
Pediatric total	246	329	575		47%
(% of pediatric patients)	(43)	(57)	(100)		
14-44	149	252	401	33	
45-59	51	67	118	10	
60+	38	81	119	10	
Adult total	238	400	638		53%
(% of adult patients)	(37)	(63)	(100)		
Clinic Total	484	729	1,213		100%

*Percent of all patients.

TABLE 2.—*1,232 Clinical Diagnoses in 1,213 Afghan Refugee Patient Visits to Nasir Bagh Clinic, Pakistan, April 16 to June 2, 1986*

Diagnosis or Complaint	Total	Per 1,000 Clinical Diagnoses*
General Symptoms	134	109 (11%)
Fatigue/weakness	10	8
Malnourished	21	17
Anemia	14	11
Headache	13	11
Anxious	23	18
Depressed	5	4
Fever	28	23
Malaria	20	18
Skin Problems	89	72 (7%)
Impetigo	13	11
Fungus	18	15
Scabies, pediculosis	9	8
Eczema	11	9
Other (insect bites, milia, minor laceration, burns, abscess)	38	31
Eye	26	21 (2%)
Conjunctivitis, stye, blepharitis	26	
Ears, Nose, and Throat	181	147 (15%)
Otitis media	42	34
Upper respiratory tract infection	59	48
Pharyngitis/tonsillitis	58	47
Other ear, nose, and throat problems (otitis externa, wax, thrush, stomatitis, mumps)	22	18
Pulmonary	150	122 (12%)
Bronchitis, pneumonia	113	92
Asthma, emphysema	19	15
Possible tuberculosis	18	15
Cardiovascular	32	26 (3%)
Congestive heart failure	10	8
Chest pain	5	4
Miscellaneous cardiovascular problems (blood pressure abnormalities, palpitation, rheumatic heart disease, congestive heart disease, venous thrombosis)	17	15
Gastrointestinal	359	291 (29%)
Indigestion, hyperacidity, peptic ulcer	48	39
Vomiting and diarrhea	25	20
Diarrhea	167	136
Abdominal pain	27	22
Constipation	15	12
Parasites, ascariasis	67	54
Rectal problems	10	8
Musculoskeletal	143	116 (12%)
Arthritis, arthralgia	39	32
Back pain	28	22
Musculoskeletal trauma	24	20
"Aches and pains"	52	42
Genitourinary (urinary tract infection, prostatitis, miscellaneous)	40	32 (3%)
Gynecologic	9	7 (1%)
Healthy	50	41 (4%)
Other Miscellaneous	19	15 (1%)
Total	1,232	1,003 (100%)

*Numbers will not always add up to total due to rounding of fractions.

(younger than 13 years by estimate). For age, sex, and diagnostic analysis, medical records of 1,213 consecutive visits between April 16 and June 2, 1986, were tabulated (Table 1).

Table 2 lists 1,232 diagnoses recorded for the 1,213 visits. Given the lack of laboratory and radiologic confirmation, diagnosis was made almost exclusively on clinical grounds. The most common reason for presenting to the clinic was gastrointestinal problems, which made up 30% of the total. Half of these were for diarrhea and most of the remainder for epigastric distress of a more chronic nature resembling gastritis or peptic ulcer disease. Of the cases of diarrhea, most of the acute problems were in infants younger than 3 years. The gastritis symptoms are much more prevalent in the age group estimated between 14 and 44 years.

The second largest diagnostic grouping was ear, nose, and throat problems, making up 15% of the total. Most of these patients were children. Pulmonary problems ranked third at 12%, most of which were bronchitis. These were scattered in all age groups. Musculoskeletal problems was the fourth category and involved mostly chronic minor aches and pains. Miscellaneous generalized symptoms such as weakness, emotional problems, and malnourished infants made up 11% of the total visits. Skin problems composed 7% and were found mostly among children. Genitourinary, cardiovascular, eye, and gynecologic problems followed in that order, each accounting for less than 4% of all visits. In all, 4% were considered healthy without any significant diagnosis. There were 20 cases of malaria, most of which were confirmed by microscopic examination of a blood specimen.

Infant malnutrition seemed prevalent. A great many infants seemed thin and weak and were generally well below normal on growth charts. Anthropometric data were not collected, however, and marasmus, though seen, was not rampant. The cause of malnutrition apparently lies mostly in infant feeding practices rather than food shortage. It is traditional to breast-feed infants until they can take table food, commonly from 9 to 12 months of age. Infant cereals are seldom used. During the breast-feeding period, a mother's milk production is often low due to her own marginal nutritional status. Malnourished infants are of course susceptible to infectious diseases. It is not known whether infant death rates in the refugee camps are different from the high Afghanistan rate discussed earlier.

Discussion

In the Nasir Bagh Clinic, as elsewhere, many social and religious issues affect the way medical care is organized and provided, and even the way data can be gathered and reported.

Status of Women

Of the adults seen in the clinic, 63% were men and 37% were women. This number of women was higher than experienced by many clinics and may have been a reflection of the initial availability of women nurse practitioners. American women physicians, nurse practitioners, and physician assistants continue to serve this clinic. The existence of male professionals and students in the clinic discouraged women from attending, or, more accurately, signaled the men in the community to discourage or deny the women access to the clinic. On at least two occasions, an older man entered the waiting area outside the clinic and shouted that it was improper for women to be seen there and that they should go away. They all did. Many returned two or three hours later.

Women commonly would bring children to the clinic, which often seemed an access route for the women to get care for themselves. When they felt they were in a safe environment, they allowed a physical examination of chest, heart, and abdomen, but no pelvic examinations were done in the first four months of the clinic. Gynecologic problems were referred to the Afghan Obstetrics-Gynecology Hospital, although many women would not or could not accept that referral, nor could that hospital care for the great demand. During a hiatus of almost two months when there was no woman provider available, women patients continued to come to the clinic to be seen and examined by American male physicians. Again, it may be that the children served as a legitimate access to this care.

Of children brought to the clinic, 57% were boys and 43% were girls (Table 1); 70% were brought in by their mothers or other women. Of these, slightly more than half (55%) were girls. Fathers or other male family members brought in the other 30% of the children, 100% of whom were boys in a small sample of 70 children. (It was not uncommon for children to be brought to the clinic solely by older siblings who were themselves preteen-aged.)

Age

Birth dates and ages are not important in the Afghan society. No one knows their birth date, and most do not know the year and have only a rough idea of how old they are. It simply is not important to them. Reporting of data by age (Table 1) is based on estimates and therefore grouped in large age ranges.

Names

Afghan names tend to be one or two words for male Afghans, and one word for female Afghans. Because many names are common, Afghans are often identified as "son of . . ." or "daughter of . . . ." Again, a medical record system is made more difficult by the name similarity and by having no birth date as a backup identifier. There also is no number system such as social security numbers, nor is there any address other than the refugee camp name. Sometimes identification is augmented by the home province in Afghanistan from which a person came.

Language

As discussed, a refugee patient may speak one or two of many languages. On occasion, an Afghan doctor or student would have to translate one language into Farsi for the other Afghan providers, then a translator would translate to English for American providers.

Education

Few people can read or write. Formal education is and has been low. An understanding of health, disease, sanitation, and self-care is generally limited to traditions and myths. Health education in the clinic often begins not from a lack of information, but from misinformation, and must be verbal.

Poverty

Most patients have almost no money. Those who live in refugee camps receive food subsistence, which they may supplement by vegetable gardening and the husbandry of

sheep when space and grass allow. A few craftspeople and shopkeepers operate either in the refugee camps or in the main commercial areas of Peshawar. Most of these men left Afghanistan with both these skills and some capital. Those with more financial well-being have moved away from Peshawar, especially into Islamabad, Pakistan, or to India, Europe, or America. The poverty of those in the refugee camps is a major deterrent to health care in most cases. Although the refugees receive free attention and medication at the IMC clinic, they are unable to afford diagnostic studies that IMC does not do. The IMC clinic had more available free medication than most other clinics. Poverty does not seem to cause severe malnutrition directly, however. Apparently food distribution systems are adequate to prevent overt starvation.

Religion

The strongly Muslim people did not seem to have major health beliefs that negated medical care, except that during the holy month of fasting, many patients would not take medicine from before dawn until dusk.

Summary

In the first few months of operation of the Nasir Bagh Clinic by the International Medical Corps, a variety of primary care medical problems were seen. The diagnoses in the children seen were not unlike the distribution of causes for admission to the major pediatric hospital in Kabul reported between 1973 and 1975.[5] Problems at the Nasir Bagh Clinic will continue to be tabulated to identify trends and needs more closely, especially as better testing improves the accuracy of diagnosis. Also, comparison with other clinics will be sought. Although more precise epidemiologic survey data would be helpful for comparison and for assessing current needs, health needs are clearly great at both the preventive and the curative levels. The large proportion of gastrointestinal problems suggests sanitation to be a major problem. Marginal nutrition may underlie many problems, especially in the children. This needs to be better studied and addressed.

As the 3 to 4 million refugees begin repatriating to their homeland over the next few years, they will find little sanitation, few functioning schools, disrupted food supplies, and almost no medical care. Afghanistan will need sustained outside help to educate large numbers of health professionals, especially women, to establish and support a health care system, to develop a safe water supply and adequate food supplies with even distribution and safe storage, to develop sewage and sanitation systems, and to provide mass public education in health matters.

In the meantime, the concerted efforts of the United Nations, the World Health Organization, the World Food Program, the Pakistan government, and the efforts of a host of international organizations and individuals will continue to be needed to meet the health needs of the refugees. Pakistan receives the brunt of refugee problems second only to the refugees themselves. It has done so with patience and grace, largely because of Islamic brotherhood. But Pakistan itself is a poor nation, with a marginal economy and with limited land. International response, though critically helpful, has been less than it could be, due in part to relatively scanty news media coverage of the situation, that in turn is due to geographic and social distance. The problems are real and deserve international attention.

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